

CCA GCA ACC AAT GAT GCC CGT T-TAMRA-3' CA GCA ACC AAT GAT GCC CGT T-TAMRA-3'

CCA GCA AGC ACT GAT GCC TGT T-TAMRA-3' CA GCA AGC ACT GAT GCC TGT T-TAMRA-3'

# Fig. 1A

#### Fluorescent Dyes

	Absorbance Maxima	Emission Maxima
Fluorescein	494nm	525nm
Tetrachloro fluorescein	521nm	536nm
TAMRA	565nm	580nm

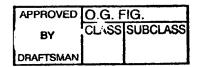
# Fig. 1B

#### **Cleaved Fragments:**

Fig. 10

# H000 NO<sub>2</sub> 181 226 H000 0: H000 NO<sub>2</sub> 309 COOH 176 214 COOH F H000 .CF<sub>3</sub> Fig. 258 151 COOH , H000 $\Sigma_{\rm S}$ **H000** 198 138 249 <u>, 1000</u> 오 YC00H Ý 122 191

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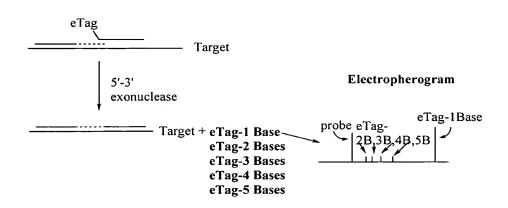


Fig. 3A

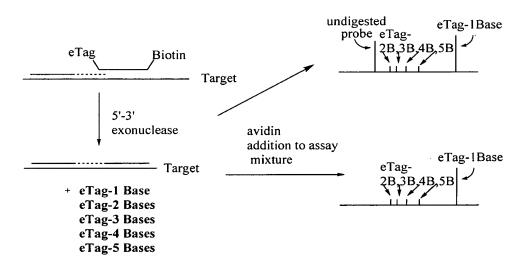


Fig. 3B

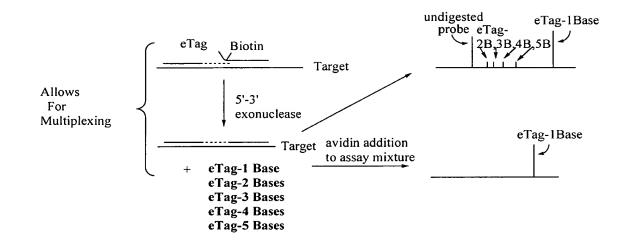


Fig. 3C

Fig. 3D

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Fig. 4

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e-tag Reporter	Elution Time on CE, min	<u>Mass</u>
HO O O O O O O O O O O O O O O O O O O	6.4	778
CI CI COOH  OHN  O-P-O-QN  NH	<sup>1</sup> 2 N <b>7.1</b>	925
HO CI CI CI ON	7.3	901
OH O	7.7	994
CI COOH OHN OP-O-ONO	8.0	985
OMe OMe O-O-O-O-O-O-O-O-O-O-O-O-O-O-O-O-O-O-O-	9.25	961

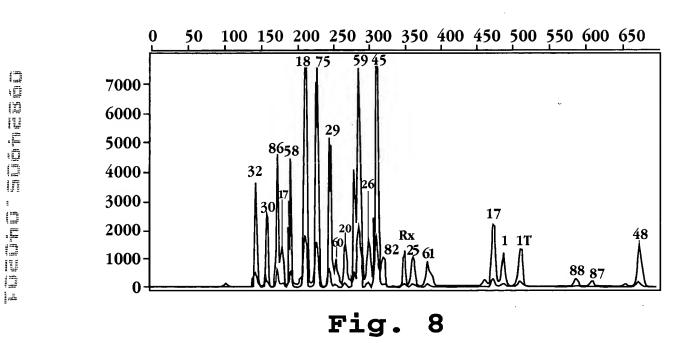
Fig. 5

e-tag Reporter	Charge	Elution Time, min
O_Fluorescein		
HN ( ) O - P - C <sub>3</sub> C <sub>3</sub> C <sub>3</sub> C <sub>3</sub> C <sub>3</sub> - O - P - C <sub>3</sub> C <sub>3</sub> C <sub>3</sub> C <sub>3</sub> C <sub>3</sub> -	~ <b>-8</b>	12.1*
	ac -0	12.1
O Fluorescein		
HN () O-P-O-C <sub>6</sub> C <sub>6</sub> C <sub>6</sub> C <sub>6</sub> C	C <sub>6</sub> C <sub>6</sub> — -9	12.7
Ownidorescent		
O Elucroscein	C <sub>6</sub> —8	12.8
O Tidorescent		
HN () 0-P-0-C <sub>6</sub> C <sub>6</sub> C <sub>6</sub> C <sub>6</sub>	<del>-7</del>	13.1
O <sub>S</sub> _Fluorescein	,qС	
O Fluorescein  HN O P-O-C <sub>3</sub> C <sub>3</sub> C <sub>9</sub> 5 O-	-6	13.0
5 Ö-	dC -0	13.0
O Fluorescein		12.4
HN(+) 0-P-0-C <sub>6</sub> C <sub>6</sub> C <sub>6</sub> -	- <b>6</b>	13.4
OF Fluorescein  HN  SO-P-O-C <sub>3</sub> C <sub>3</sub> OF Fluorescein  HN  OP-O-C <sub>3</sub> C <sub>9</sub> OF Fluorescein		
HN () O-P-O-C <sub>3</sub> C <sub>3</sub>	-5	12.8*
O Fluorescein	С	
HN()_O-P-O-C <sub>3</sub> C <sub>9</sub> _	-5	13.2*
O Fluorescein	С	
HN () O-P-O-C <sub>9</sub> C <sub>9</sub>	-5	14.8
O Fluorescein	C	
HN ( ) O-P-O-TTTdC	-6	17.3
_	U	27.0
O Fluorescein	_	4 # 0
HN CO-P-O-C9  HN CO-P-O-C9  Grant Correction  HN CO-P-O-C9	-5	17.0
O Fluorescein O		
HN() O-P-O-C <sub>9</sub> — dT	<b>-4</b>	15.2*
O Fluorescein		
O Fluorescein O HN O P-O TdC	-4	16.5
5 O-		

Fig. 6

Fig. 7

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ROOC COOR N

DMTO

OCE

$$X = \text{halogen}$$

HOOC

 $X = \text{halogen}$ 
 $X = \text{halogen}$ 
 $X = \text{halogen}$ 
 $X = \text{halogen}$ 

Fig. 9

(9 negative charges per coupling)

Fig. 10

HO COH Pyridine HOOC HoOC, 
$$CH_2Cl_2$$

HOOC H<sub>2</sub>N( $\frac{1}{n}OH$ 

DCC,  $CH_2Cl_2$ 

H<sub>2</sub>N( $\frac{1}{n}OH$ 

DMF

HO( $\frac{1}{n}OH$ 

DMF

P-N

CEO
P-N

CI

Fig. 11

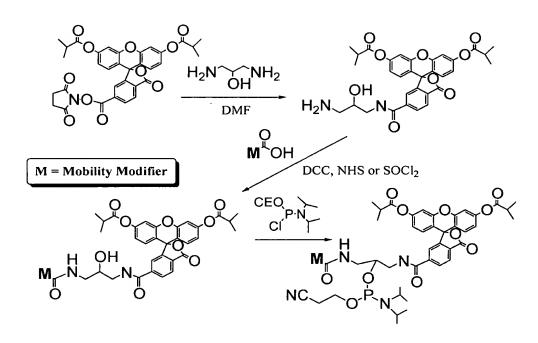
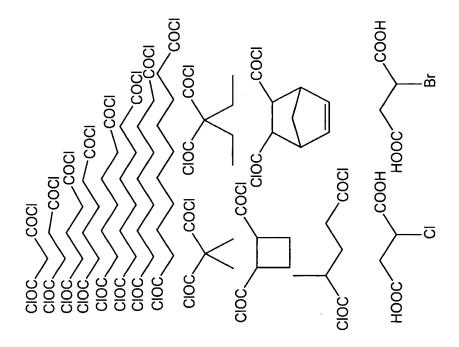


Fig. 12

$$\begin{array}{c} \text{HO} \longrightarrow \text{OH} \longrightarrow \text{CIOC-R-COCI} \\ \text{H}_2\text{N} \longrightarrow \text{H}_2\text{O} \longrightarrow \text{Pyridine} \\ \text{HO} \longrightarrow \text{R} \longrightarrow \text{OH} \longrightarrow \text{Pyridine} \\ \text{HO} \longrightarrow \text{R} \longrightarrow \text{OH} \longrightarrow \text{R} \longrightarrow \text{R} \longrightarrow \text{CEQ} \\ \text{R} = \text{commercial diacidchloride} \\ \text{X} = \text{commercial amino alcohol} \end{array}$$

Fig. 13



H<sub>2</sub>N H<sub>2</sub>N H<sub>2</sub>N H<sub>2</sub>N H<sub>2</sub>N H<sub>2</sub>N OH SBnOMe H<sub>2</sub>N OH SBnOMe H<sub>2</sub>N OH SBnOMe SBnOMe SBnOMe

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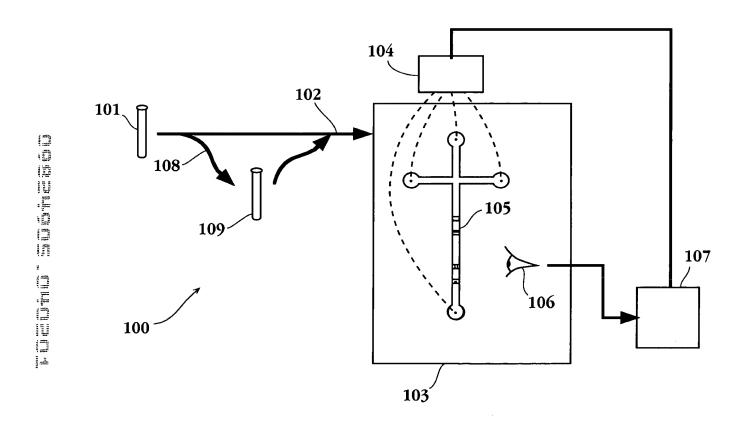
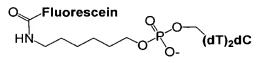


Fig. 16

# ACLA001

# ACLA002

# ACLA003



#### ACLA004

# ACLA005

# ACLA006

#### ACLA007

# ACLA008

#### ACLA009

# ACLA010

# ACLA011

# ACLA012

Fig. 17A

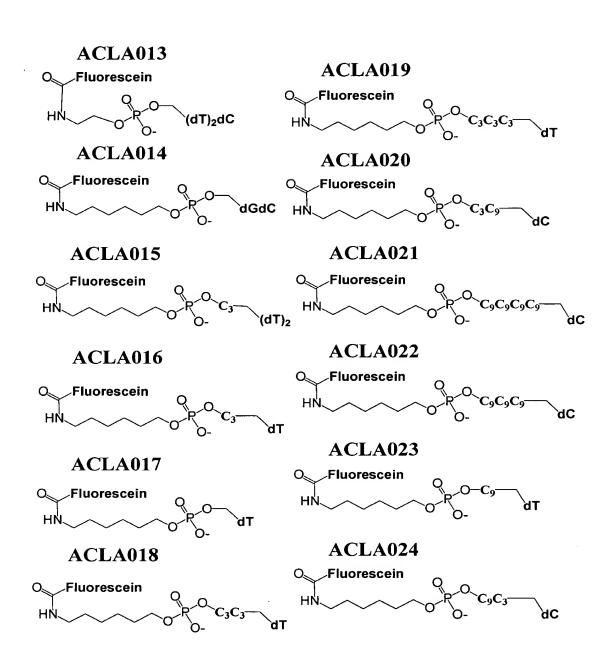


Fig. 17B

Fig. 17C

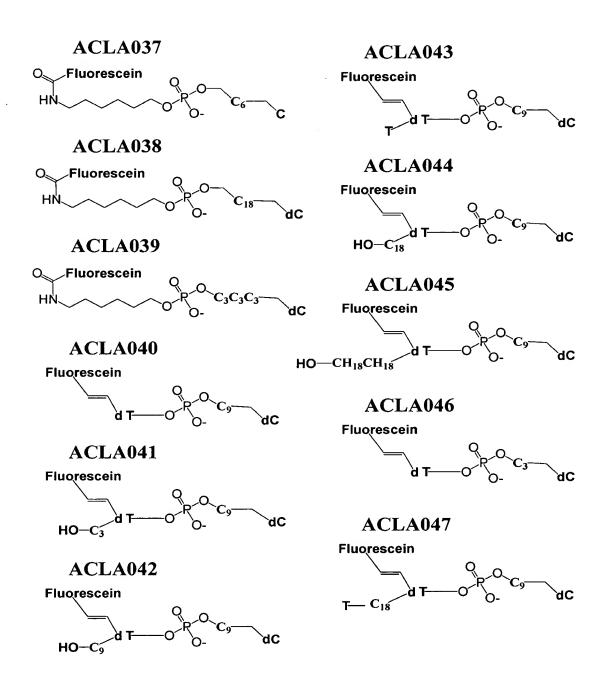


Fig. 17D

#### ACLA048

#### ACLA049

#### ACLA050

# ACLA051

#### ACLA052

# ACLA053

# ACLA054

# ACLA055

# ACLA056

O Fluorescein 
$$C_9C_9C_9C_4$$
  $C_9C_9C_4$ 

#### ACLA057

# ACLA058

# ACLA059

Fig. 17E

Fig. 17F

APPROVED O.G. FIG.
BY CLASS SUBCLASS
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Fig. 17G

Fig. 17H

APPROVED O.G. FIG.		
BY	CLASS	SUBCLASS
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#### ACLA089

$$C_3C_3TC_3$$
 d T  $C_9$  dC

# ACLA090

# ACLA091

Fluorescein

# ACLA092

Fluorescein

# ACLA093

Fluorescein

#### ACLA094

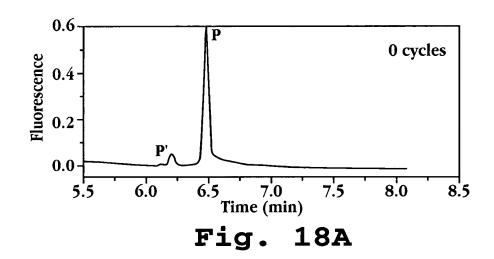
# ACLA095

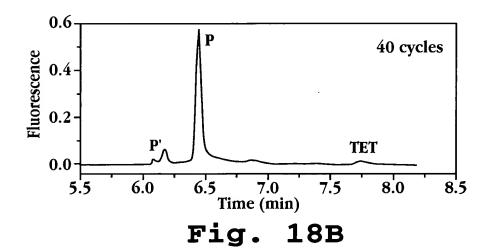
# ACLA096

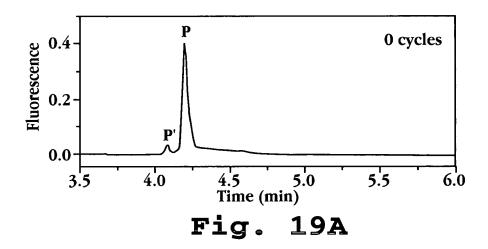
# ACLA097

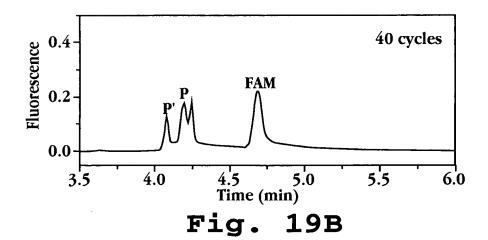
Fig. 17I

Fig. 17J



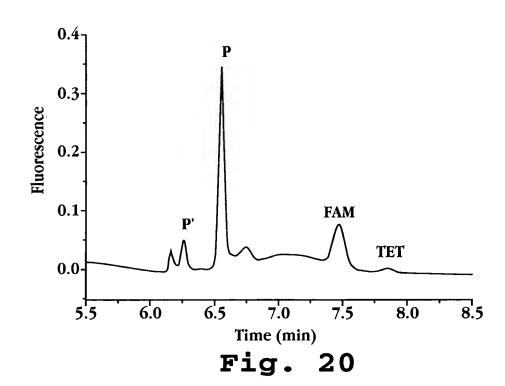






APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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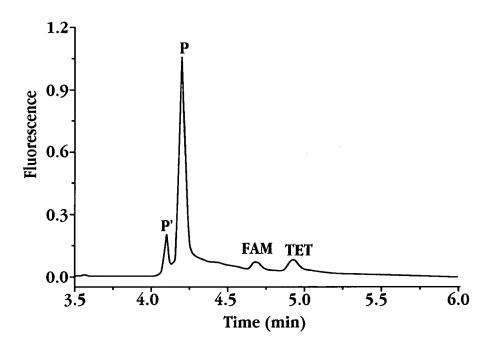


Fig. 21

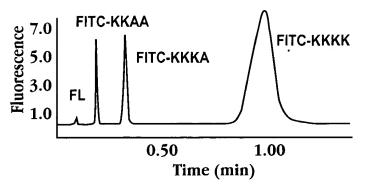


Fig. 22

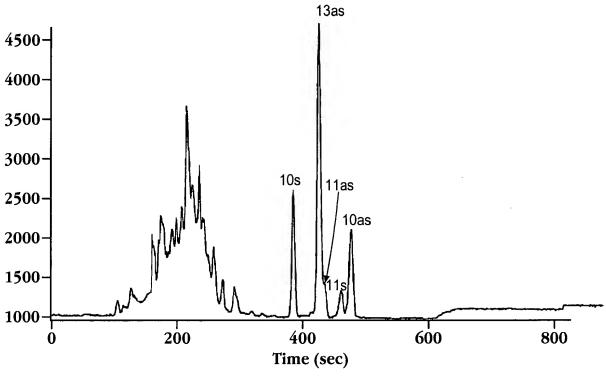


Fig. 23A

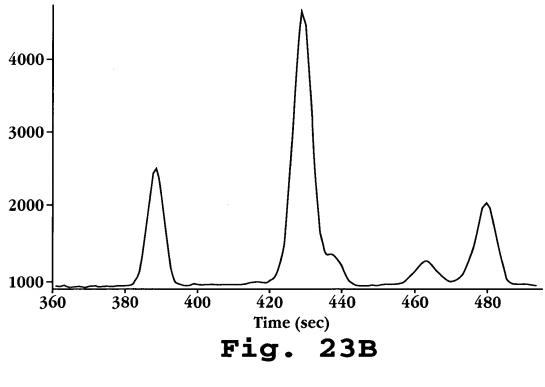


Fig.

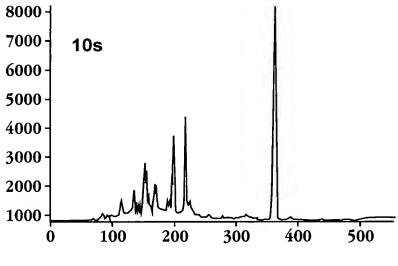
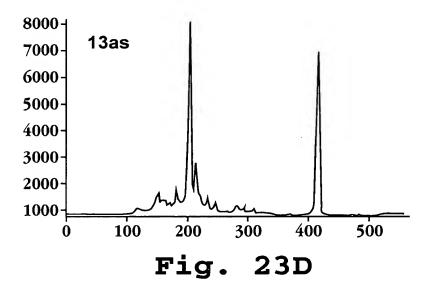


Fig. 23C



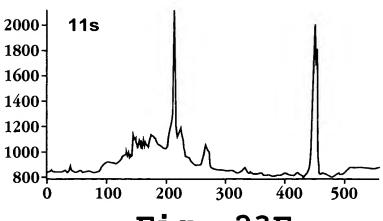


Fig. 23E

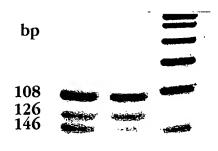
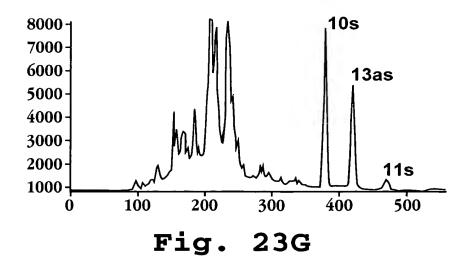


Fig. 23F





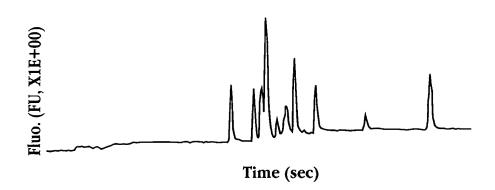


Fig. 24

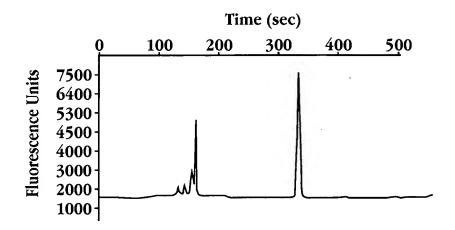


Fig. 25A

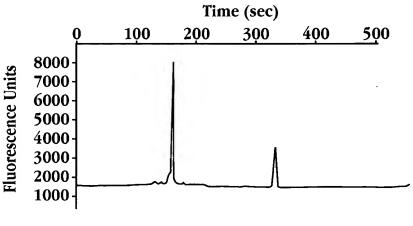
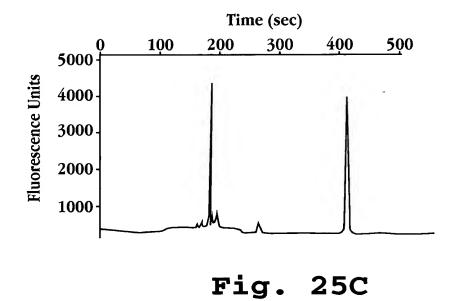


Fig. 25B



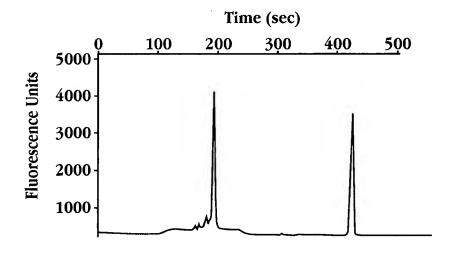


Fig. 25D

	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

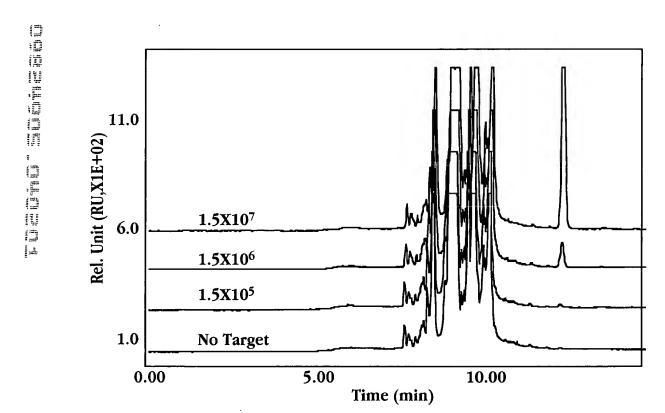
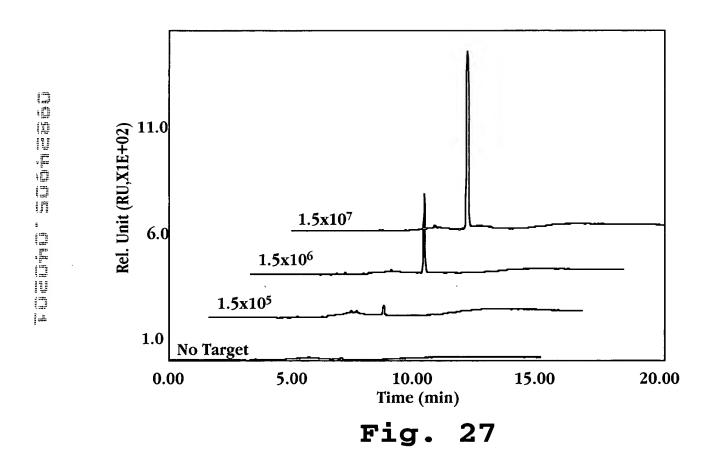


Fig. 26

	O.G. FIG.	
BY	CLASS SUBCLASS	
DRAFTSMAN		



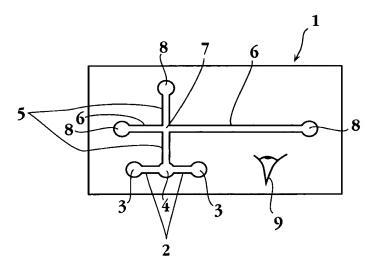


Fig. 28A

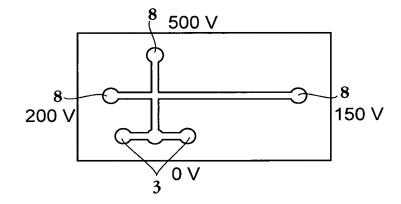


Fig. 28B

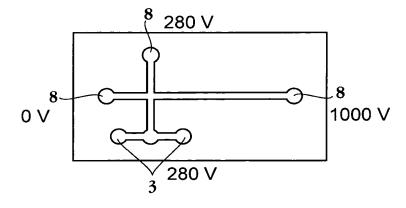


Fig. 28C

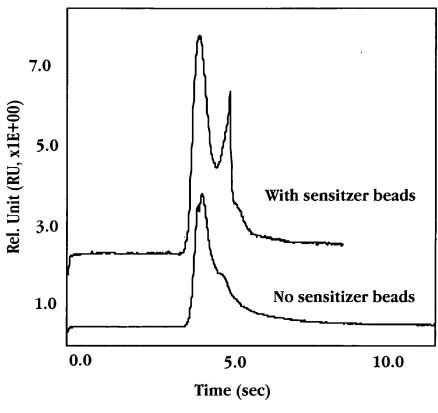


Fig. 29

APPROVED O.G. FIG.		
BY	CLASS	SUBCLASS
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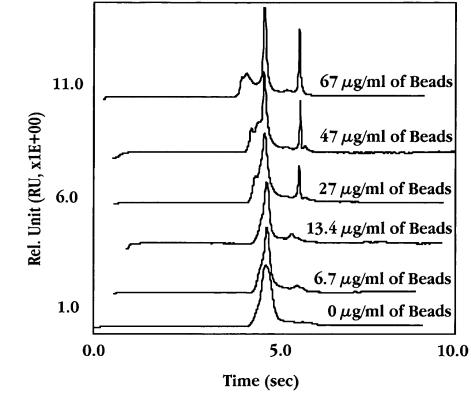
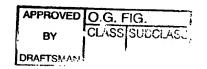


Fig. 30



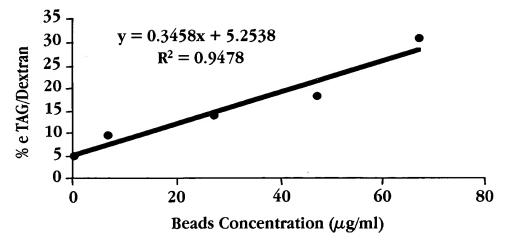


Fig. 31

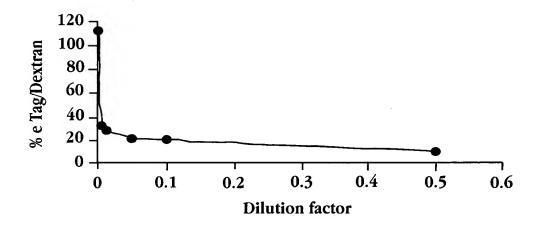
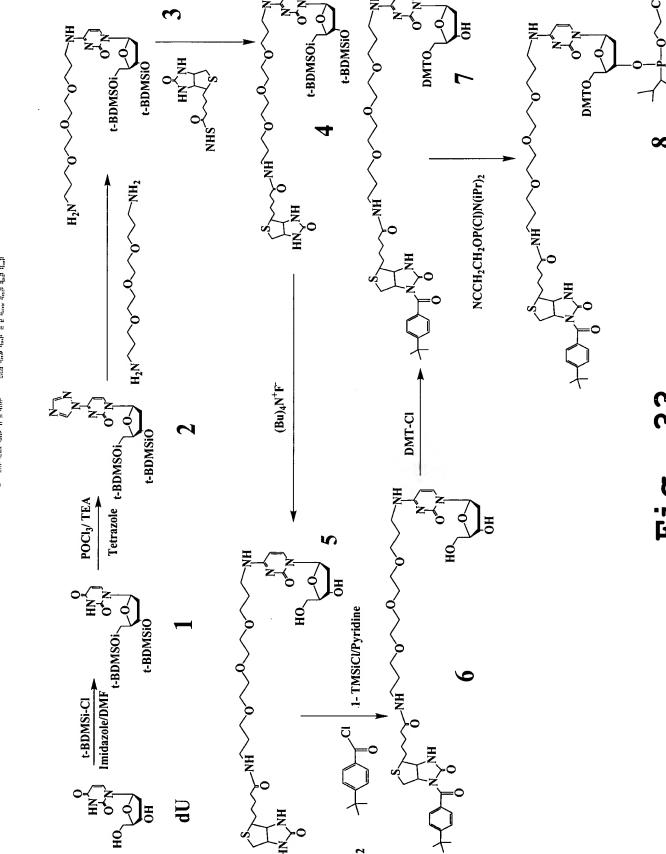


Fig. 32



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NHB2 N+2N \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	t-BDMSiO  1- $\frac{Q}{NHS}$ NHS  2-(Bu) <sub>4</sub> NF	DMTO OHO OHO	က
NHBZ H <sub>2</sub> N ~ O	H <sub>2</sub> N ~ 0 ~ 0 ~ 0 ~ NH <sub>2</sub> N	HN NH O H	
1. Br <sub>2</sub> /NaOAc Buffer/ pH5 2. TMS-CV BzCl	3- DMT-CI/ pyridine DMTO OH	NHBZ O H O O O O H O N O O O O O O O O O O O	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\

Fig. 34